



CEDAR RIVER

King County Flood Hazard Management Plan Update

Lower Cedar River flooding near Elliott Bridge, 2009

King County's river and floodplain management vision and strategy:

- Reduce flood and erosion risks to residents through voluntary acquisitions of at-risk homes and neighborhoods.
- Protect roads, bridges and other infrastructure by setting back existing levees to increase channel capacity and reduce the depth and speed of floodwaters.
- Minimize economic impacts of flooding on businesses through removal of gravel and other sediment from the river's lowest 1.25 miles, thus reducing flooding in urban Renton, including the Boeing plant and Renton Airport.
- Support habitat restoration in flood-prone areas by coordinating flood risk reduction projects with habitat efforts. For example, setbacks and acquisitions can result in open space that creates or improves fish and wildlife habitat, including off-channel habitat for Chinook salmon.
- Communicate effectively with residents about specific flood risks, safety measures and proposed projects and activities in the watershed.

Existing conditions of the Cedar River basin:

- The upper watershed is preserved in forest and managed by the City of Seattle for drinking water and hydropower. This part of the watershed provides both natural and man-made flood storage that can lessen flooding impacts.
- Land use in the middle Cedar is primarily rural and residential; extensive bank armoring reduces channel migration but leaves homes and roads vulnerable to damage due to overtopping and channel erosion. The Cedar River Trail and State Route 169 are vulnerable to channel erosion and protected by many revetments.
- The lower river, including the channelized last 1.25 miles, flows through downtown Renton, passing businesses and important infrastructure, like the Boeing plant and Renton Airport. The river carries sediment from upstream and deposits it here where the river flattens out.
- Older flood risk reduction methods along the river emphasized bank hardening structures that do not adequately reduce flood risk, harm salmon recovery, and are vulnerable to damage or failure.



Bank erosion along the Cedar River Trail and State Route 169, 2009

continued on back

Existing Conditions continued

- Flood events often overwhelm the storage capacity of dams and containment capability of levees in the watershed. The watershed can experience widespread flooding, erosion, evacuations, and septic system failures. Floods also damage infrastructure, contaminate drinking water and leave neighborhoods cut off from roads and services.
- Steep hillsides can slide into the river, affecting or even blocking the channel as happened during the 2001 Nisqually earthquake.

King County Flood Plan accomplishments 2006-2012:

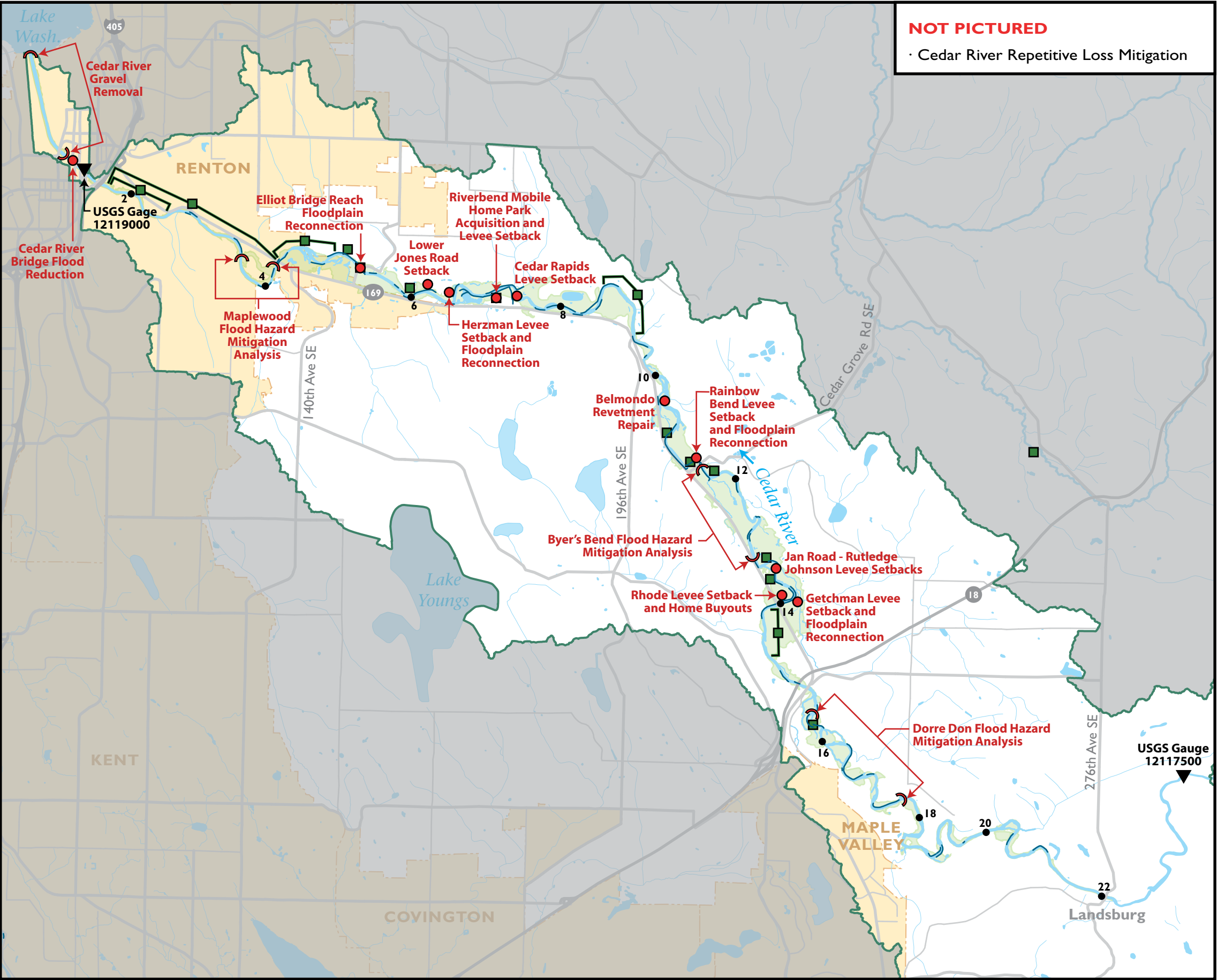
- Repaired and retrofitted 2,850 feet of levees and revetments along the river and improved habitat and stabilize the riverbanks using native plants and large wood and
- Constructed an additional 2,730 feet of levees in a setback configuration, reconnecting 31 acres of flood plain with the river.
- Acquired, in coordination with restoration partners, more than 90 flood-prone homes through voluntary buyouts, including a mobile home park and 11 repetitive loss properties identified by the Federal Emergency Management Agency.
- Completed studies on channel mapping techniques, recreational use of the river, and the size, location and movement of large wood in the Cedar.
- Continued coordination with the City of Seattle on the operation of the Masonry Dam and annual outreach to communities on flood preparedness.

Proposed river and floodplain management actions for 2013-2018:

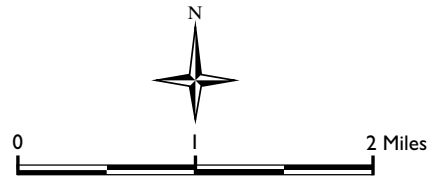
- Analyze river conditions and do geomorphic assessments and feasibility studies to inform levee setback projects.
- Support periodic gravel removal from the lower river to protect downtown Renton businesses and infrastructure.
- Acquire property interests needed to set back levees like Herzman, Rhode, Getchman, Jan Road, and Rutledge-Johnson. Setting back these levees will reduce the speed and depth of floodwaters, reducing potential for damage to infrastructure and homes.
- Remove the levee at Rainbow Bend and work with partners in habitat restoration to restore natural floodplain functions.
- Analyze flood patterns and investigate ways to reduce risks to homes in the Maplewood, Byer's Bend and Dorre Don neighborhoods.
- Complete acquisition, in partnership with the Washington State Department of Transportation and others, of flood-prone homes at Elliott Bridge Reach and move forward to set back the levees.
- Continue to acquire flood-prone homes from willing sellers, focusing on properties that have faced repeated losses and neighborhoods vulnerable to fast and deep flows that threaten safety and structures.
- Set back Lower Jones Road and its revetment and remove parts of levees at Jan Road and Rutledge-Johnson.
- Provide part of the funding needed to upgrade five flood-prone bridges in Renton.

Questions? Please call 206-296-8001
or email WLR-rivers@kingcounty.gov.

Translation services and
alternate formats available
Call 206-296-6519 or TTY:711



- CEDAR RIVER**
KING COUNTY FLOOD HAZARD
MANAGEMENT PLAN
- Proposed Project Sites, as described in Chapter 5 (Project locations are approximate)
 - Flood Hazard Mitigation Analysis Reach
 - Rivers and Streams with FEMA Mapped 100-Year Regulatory Floodplains
 - Rivers and Streams with Unmapped Regulatory Floodplains
 - Flood Protection Infrastructure (Levees & Revetments)
 - WRIA Salmon Recovery 3-Year Work Plan Project Sites and Reaches
 - River Miles (Approximate)
 - Watershed/Basin Boundary
 - Road
 - Incorporated Area




King County
Department of
Natural Resources and Parks
Water and Land Resources Division

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Data sources: King County datasets
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